Case Study for EOSDIS Support to MEaSUREs: the Vegetation Index and Vegetation Phenology ESDRs

Calli Jenkerson[3], Kamel Didan[1], David Meyer[2], Michael Neiers[4], Ben Overmyer[4], Brian Clement[3], Adam Dosch[3], Kirk Evenson[4], Julie Luebke[4]

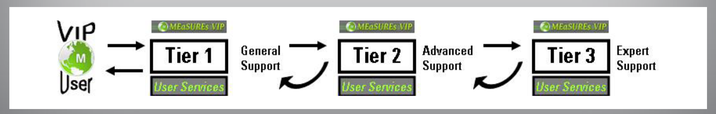
[1]University of Arizona. [2]U.S. Geological Survey (USGS) Earth Resources and Observation and Science (EROS) Center, Sioux Falls, SD. [3]ADNET Systems, Inc., contractor to USGS EROS Center, Sioux Falls, SD. [4]Stinger Ghaffarian Technologies (SGT), contractor to the USGS EROS Center, Sioux Falls, SD. [3, 4]Work performed under National Aeronautics and Space Administration (NASA) Making Earth System Data Records for Use in Research Environments (MEaSUREs) Cooperative Agreement (CA) # NNX08AT05A "Vegetation Phenology and Vegetation Index Products from Multiple Long Term Satellite Data Records, Principal Investigator Kamel Didan".

Introduction

The goal of the MEaSUREs solicitation is to develop Earth System Data Records (ESDR) which, following evaluation by a NASA Earth Science Data System Working Group (ESDSWG), may be approved as standard NASA Distributed Active Archive Center (DAAC) holdings. The USGS Earth Observation Systems (USGS-EOS) Project is providing services in the five-year interim to prepare the Vegetation Index and Vegetation Phenology (VIP) ESDRs for transition into the Land Processes DAAC if approved at the end of the term. Establishing ESDR services prior to ESDSWG approval encourages their proper support and usage, and promotes community consensus for these products. USGS-EOS service to the VIP ESDRs includes distribution, user services, outreach support, and metrics reporting.

User Support Model

The USGS-EOS has implemented a model to define the levels of user service available to the MEaSUREs VIP community, for the purpose of building product knowledge, client expertise, and familiarity with the user base.



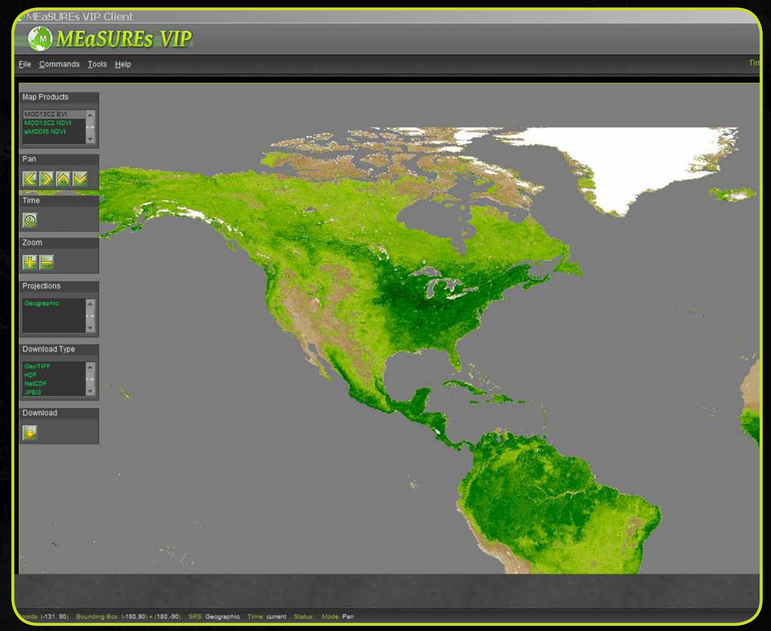
Project Metrics

Interactions with the user community, whether through the discovery client, distribution of products, or user services contacts, are recorded and reportable as project metrics that track the progress and success of the VIP project. Quantification of the number and type of web services requested, the subsequent file downloads, number of unique users by domain, and number of Web site hits are examples of the metrics that will be reported through the NASA Metrics Collection Portal (MCP).

MEaSUREs VIP Client

During initial VIP development, USGS-EOS has prototyped a distribution system based on web service functions executing on-demand reformatting, reprojection, and subsetting of native data for delivery as applications-ready products. The client is available as a beta operational access tool for the remainder of the five-year project term.

Until the ESDR data files become available, the VIP Client offers eMODIS NDVI data at over the United States from 2000-present, and the global MODIS Monthly Vegetation Index Climate Modeling Grid product (MOD13C2) for the same time period.



Conclusion

Preliminary USGS-EOS involvement in the VIP MEaSUREs project optimizes the ESDRs for community acceptance and favorable evaluation by the ESDSWG.

By engaging in supportive activities such as developing a discovery and distribution client, reporting product metrics on usage and access, providing a point of contact for user support, and promoting the ESDRs through Web sites and conference presentations, the USGS-EOS enhances the success of the VIP ESDRs.

Outreach

USGS-EOS assists the PI in promoting the VIP products and services. A Web site has been established with general ESDR information and access to the VIP Client. Contributions are planned for upcoming conferences and PI-led user workshops.

For More Information

Visit the MEaSUREs VIP Lab at the University of Arizona at http://measures.arizona.edu. Client information is available from USGS-EOS MEaSUREs User Services at jenkerson@usgs.gov.

December 2009

U.S. Department of the Interior
U.S. Geological Survey